



CIVIL AIM CONSULTANTS & ENGINEERS

(Building Geo-Tech & Highway Materials Testing Laboratory)

An ISO 9001-2015 Certified Company, ISO No:IN9188A

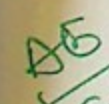


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QC ABSTRACT

me of Work: Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.

Item	Quantity As Per BOQ	Required No's of testes	Actual No's of testes	Testes	Frequency
1:3:6	91.65 Cum	1	1	Cement	One Test Per Lot
				Sand, Aggregates	
M20	193.92 Cum	7	7	Concrete Cube Compressive Strength	-
Steel	12.51 Tonne	1	1	Concrete Blocks Compressive Strength	-
Slab (100mm)	490.86 Sqm	1	1	Concrete Core Compressive Strength	-
Slab (250mm)	8.10 Sqm	1	1	Concrete Core Compressive Strength	-
WMM	217.16Cum	-	-	-	-
	Gradation	2	2	-	-
	AIV	1	1	-	-
	Shape Test	1	1	-	-
	Atterberg Limits	2	2	-	-
DBM	54.30 Cum	-	-	-	-
	Quality of Binder	1	1	-	-
	AIV	1	1	-	-
	Shape Test	1	1	-	-
	Gradation	1	1	-	-
	Specific Gravity	1	1	-	-
	Stability of Mix	1	1	-	-
	Bitumen content	1	1	-	-
BC	56.73 Cum	-	-	-	-
	Quality of Binder	1	1	-	-
	AIV	1	1	-	-


 ಸಹಾಯಕ ಮುಖ್ಯಸ್ಥರ ಅಧೀನದಲ್ಲಿ
 ಯಂತ್ರೋಪಕರಣ ಸಾಮಗ್ರಿಗಳ
 ಪರಿಶೀಲನೆ ಮತ್ತು ಪರೀಕ್ಷೆ
 ಕೆ.ಎಂ.ಎ. ಬೆಂಗಳೂರು-106


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Shape Test	1	1	-	-
Gradation	1	1	-	-
Specific Gravity	1	1	-	-
Stability of Mix	1	1	-	-
Bitumen content	1	1	-	-

Cubes
0-5 Cum 1Set
6-15 Cum 2Set
16-30 Cum 3Set
31-50 Cum 4Set
Add 1set for extra 50Cum

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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date: 05.11.2021

TEST REPORT

CLIENT	:	Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
AGENCY	:	Sri. Umesh N, Contractor, Bangalore.
NAME OF THE WORK	:	Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
SAMPLE ID	:	Cement (Zuari OPC 53 Grade)
DATE OF MANUFACTURE	:	October - 2021
DATE OF TESTING	:	03.11.2021 to 05.11.2021
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 269-2015
1	a) Initial Setting Time	IS-4031 (Part -5)	130 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	340 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	30.00 %	-

Note:

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[Signature]

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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date : 05.11.2021

TEST REPORT ON FINE AGGREGATES (SAND)

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.

Agency : Sri. Umesh N, Contractor, Bangalore.

Name of Work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.

Date of Testing : 05.11.2021

IS Code : IS 383:2016
: IS 2386 (Part 1):1963(RA 2011)

Material : Sand

Total Wt. of Aggregates in gms 1000

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	84	8.40	8.40	91.6	90-100
2.36	139	13.90	22.30	77.7	75-100
1.18	182	18.20	40.50	59.5	55-90
600 Micron	152	15.20	55.70	44.3	35-59
300 Micron	220	22.00	77.70	22.3	8-30
150 Micron	167	16.70	94.40	5.6	0-10

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ಯೋಜನೆ ಮತ್ತು
ನಿರ್ವಹಣೆ
ಇ.ಎಂ.ಸಿ. 2017-2021

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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date : 05.11.2021

TEST REPORT ON COARSE AGGREGATES

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency : Sri. Umesh N, Contractor, Bangalore.
Name of Work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
Date of Testing : 05.11.2021
IS Code : IS 383:2016
: IS 2386 (Part 1):1963(RA 2011)
Material : 20mm Aggregates

Total Wt. of Aggregates in gms= 5000

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	189	3.8	3.8	96.2	95-100
10	2436	48.7	52.5	47.5	25-55
4.75	1950	39.0	91.5	8.5	0-10

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ಯಲಹಂಕೆ ಸಬ್ ಡಿವಿಷನ್, ಬೆಂಗಳೂರು-೧೦೬
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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date : 05.11.2021

TEST REPORT ON COARSE AGGREGATES

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency : Sri. Umesh N, Contractor, Bangalore.
Name of Work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
Date of Testing : 05.11.2021
IS Code : IS 383:2016
: IS 2386 (Part 1):1963(RA 2011)
Material : 40mm Aggregates

Total Wt. of Aggregates in gms 15000

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	189	1.26	1.26	98.74	95-100
20	8236	54.91	56.17	43.83	30-70
10	3260	21.73	77.90	22.10	10-35
4.75	2815	18.77	96.67	3.33	0-5

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ಕೆ.ಬಿ.ಎಂ.ಸಿ. ಬೆಂಗಳೂರು-೧೦೬

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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date : 08.11.2021

TEST REPORT OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.

Agency : Sri. Umesh N, Contractor, Bangalore.

Name of Work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.

Steel Dia/Length : ,10mm,12mm " Fe500 TMT Bars"

Reference to BIS codes : IS 1786:2008(RA 2013) High Strength Deformed Steel Bars and Wires for Concrete Reinforcement-Specification

: IS 1608:2005 Metallic Materials- Tensile Testing at Ambient Temperature

Date of test : 08.11.2021

S.No	Brand	Nominal size (dia in mm)	Mass per meter (kg/meter)	TENSILE STRENGTH			
				0.20 % proof stress/ yield stress (N/mm ²)	Tensile strength (N/mm ²)	TS/YS ratio	Elongation, percent on gauge length
1	TMT	10	0.618	552	643	1.16	14
2	TMT	12	0.889	569	668	1.17	15.5

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ಜಿ.ಪಿ.ಎಂ.ಸಿ. ಬೆಂಗಳೂರು-106

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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date: 13.12.2021

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency : Sri. Umesh N, Contractor, Bangalore.
Name of the work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
Sample ID : Cement Concrete for Raft
Size of cubes : 150mmx150mmx150mm
Cross Sectional Area : 22500 mm²
Technical Reference : IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete : M₂₀
Compressive Strength as on : 28th day

SLNo.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm ²)
1	15.11.2021	13.12.2021	8.154	520.3	23.12
2	15.11.2021	13.12.2021	8.126	519.5	23.09
3	15.11.2021	13.12.2021	8.138	484.9	21.55

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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date: 13.12.2021

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.

Agency : Sri. Umesh N, Contractor, Bangalore.

Name of the work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.

Sample ID : Cement Concrete for Raft

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm²

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M₂₀

Compressive Strength as on : 28th day

SLNo.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm ²)
1	15.11.2021	13.12.2021	8.177	489.6	21.76
2	15.11.2021	13.12.2021	8.152	512.2	22.76
3	15.11.2021	13.12.2021	8.163	492.6	21.89

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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date: 24.11.2021

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency : Sri. Umesh N, Contractor, Bangalore.
Name of the work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
Sample ID : Cement Concrete for Wall
Size of cubes : 150mmx150mmx150mm
Cross Sectional Area : 22500 mm²
Technical Reference : IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete : M₂₀
Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm ²)
1	17.11.2021	24.11.2021	8.168	356.3	15.84
2	17.11.2021	24.11.2021	8.174	329.4	14.64
3	17.11.2021	24.11.2021	8.156	334.8	14.88

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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date: 26.11.2021

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency : Sri. Umesh N, Contractor, Bangalore.
Name of the work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
Sample ID : Cement Concrete for Raft
Size of cubes : 150mmx150mmx150mm
Cross Sectional Area : 22500 mm²
Technical Reference : IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete : M₂₀
Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm ²)
1	19.11.2021	26.11.2021	8.162	335.3	14.90
2	19.11.2021	26.11.2021	8.138	349.3	15.52
3	19.11.2021	26.11.2021	8.146	332.6	14.78

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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date: 20.12.2021

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency : Sri. Umesh N, Contractor, Bangalore.
Name of the work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
Sample ID : Cement Concrete for Wall
Size of cubes : 150mmx150mmx150mm
Cross Sectional Area : 22500 mm²
Technical Reference : IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete : M₂₀
Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm ²)
1	22.11.2021	20.12.2021	8.168	476.9	21.20
2	22.11.2021	20.12.2021	8.184	495.8	22.04
3	22.11.2021	20.12.2021	8.146	516.3	22.95

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Job No: CACE/BBMP/UN/W.No.03/2021-22

Date: 02.12.2021

PRECAST SLAB 100mm Thick(CORE) TEST REPORT

Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP,
Contractor : Sri. Umesh N, Contractor, Bangalore.
Name of Work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
No. of Sample Tested : 03
Date of Testing : 02.12.2021
Technical Reference : IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete : M₂₀

S. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m ³)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm ²)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm ²)	Equivalent Cube Compressive Strength (N/mm ²)
1	50.00	82.00	0.380	2360.15	1.64	0.961	32.20	16.40	17.71	17.02	21.28
2	50.00	84.00	0.392	2376.71	1.68	0.965	32.80	16.70	18.04	17.42	21.77
3	50.00	86.00	0.405	2398.43	1.72	0.970	33.50	17.06	18.43	17.87	22.34

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ಯಶವಂತ ಸುಪನಗರ ಸುಪದಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

(Building Geo-Tech & Highway Materials Testing Laboratory)

NABL Accredited As Per ISO/IEC 17025:2017 Laboratory



Date : 15.12.2021

Client

Agency

Name of Work

IS Code:

Date of Testing

Material Type

: Wet Mix Macadam

10000

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Requirement as per MORTH 5th edition table no. 400.13
53	0	0	0	100	100
45	189	189	1.9	98.1	95-100
22.4	2560	2749	27.5	72.5	60-80
11.2	2163	4912	49.1	50.9	40-60
4.75	1852	6764	67.6	32.4	25-40
2.36	1168	7932	79.3	20.7	15-30
0.600	589	8521	85.2	14.8	8-22
0.075	1215	9736	97.4	2.6	0-5

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Job No: CACE/BBMP/UN/W.No.03/2021-22

Date: 15.12.2021

Aggregate Impact Value

Client	Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency	Sri. Umesh N, Contractor, Bangalore.
Name of the Work	Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
IS Code	IS 2386 (Part 4):1963(RA 2011)
Type of Mix	Wet Mix macadam
Date of Testing	15.12.2021

Sl No.	Details	Test No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	379	381	22.37
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	84	86	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	295	295	
4	Aggregate Impact value = percent fines $100 \times (W_2/W_1)\%$	22.16	22.57	

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30% (As per MORTH Specification table 400.12)

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ಇದರಲ್ಲಿ ಉಲ್ಲೇಖಿಸಿದ ಮಾಹಿತಿಗಳು
ಅಧಿಕಾರವಾಗಿವೆ ಮತ್ತು ಅವುಗಳನ್ನು
ಉಪಯೋಗಿಸಲು ಅನುಮೋದನೆ ನೀಡಲಾಗಿದೆ.

JobNo: CACE/BBMP/UN/W.No.03/2021-22

Date : 28.12.2021

TEST RESULTS OF AGGREGATE SHAPE TEST (Flakiness & Elongation)

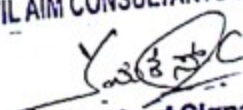
Client : Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency : Sri. Umesh N, Contractor, Bangalore.
Name of work : Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
BIS Code : IS 2386 Part (1):1963
Date of Test : 28.12.2021
Type of Mix : Dense Graded Bituminous Macadam

SLNo.	Flakiness Index Value(%)	Elongation Index Value(%)	Total(Combined Flakiness and Elongation)(%)	Requirements
1	11.50	13.90	25.40	Maximum allowable Combined Flakiness and Elongation Indices for Dense Graded Bituminous Macadam is 35% as per Table 500.8 MORTH Specification.
2	12.10	14.20	26.30	

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ಯಾವುದೇ ಉದ್ದೇಶಕ್ಕಾಗಿ
ಪರಿಶೀಲಿಸಲ್ಪಟ್ಟಿವೆ - 106

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Job No: CACE/BBMP/UN/W.No.03/2021-22

Date: 30.12.2021

Specific Gravity And Water Absorption Test

Client	Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency	Sri. Umesh N, Contractor, Bangalore.
Name of the Work	Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
BIS Code	IS 2386(Part 3):1963
Type of Mix	Dense Graded Bituminous Macadam
Date of Testing	28.12.2021 to 30.12.2021

SL No.	Details	Notation	Test Number			Mean Value
			Test 1	Test 2	Test 3	
1	Weight of aggregate suspended in water with the basket	$W_1 g$	2019	2021	2023	
2	Weight of basket suspended in water	$W_2 g$	754	754	754	
3	Weight of saturated aggregate in water	$(W_1 - W_2) = W_s g$	1265	1267	1269	
4	Weight of saturated surface dry aggregate in air	$W_3 g$	2015	2017	2019	
5	Weight of water equal to the volume of the aggregate	$(W_3 - W_s) g$	750	750	750	
6	Weight of oven dried aggregate	$W_4 g$	2008	2009	2010	
7	Specific Gravity	$W_4 / (W_3 - W_s)$	2.677	2.679	2.680	2.679
8	Apparent Specific gravity	$W_4 / (W_4 - W_s)$	2.703	2.708	2.713	2.708
9	Water Absorption	$((W_3 - W_4) * 100) / W_4$	0.35%	0.40%	0.45%	0.40%

Comments:

→ Maximum allowable Aggregate Water absorption value for Dense Graded Bituminous Macadam is 2.0% (As per MORTH table 500.8)

Note:

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Sl. No. CACE/BBMP/UN/W.No.03/2021-22

Date: 29.12.2021

Aggregate Impact Value

Contract	Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
Agency	Sri. Umesh N, Contractor, Bangalore.
Name of the Work	Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
IS Code	IS 2386(Part 4):1963
Source / Location	Hot Mix Plant, Bangalore
Type of Mix	Bituminous Concrete
Date of Testing	29.12.2021

Date of Testing		29.12.2021		
Sl No.	Details	Test No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	382	384	
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	85	87	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	297	297	
4	Aggregate Impact value = percent fines	22.25	22.66	22.45
	$100 * (W_2/W_1)$ percent			

Concrete is 24%(MORTH table)

Comments:

4	Aggregate Impact Value	100* (W ₂ /W ₁) percent
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Comments:

→ Maximum allowable Aggregate Impact value for Bituminous Concrete is 24% (MORTH table no. 500.16)

Full, without written approval of the laborer, the samples collected at the site of testing.

Note:

Comments:
→ Maximum allowable Aggregate Impact value for Bituminous concrete (IS 800.16)
Note:
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...ultants@gmail.com

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CACE/BBMP/UN/W.No.03/2021-22

Date : 31.12.2021

Specific Gravity And Water Absorption Test

	Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
	Sri. Umesh N, Contractor, Bangalore.
of the Work	Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
Code	IS 2386(Part 3):1963
of Mix	Bituminous Concrete
of Testing	29.12.2021 to 31.12.2021

No.	Details	Notation	Test Number			Mean Value
			Test 1	Test 2	Test 3	
	Weight of aggregate suspended in water with the basket	W_1 g	2020	2022	2024	
2	Weight of basket suspended in water	W_2 g	755	755	755	
3	Weight of saturated aggregate in water	$(W_1 - W_2) = W_s$ g	1265	1267	1269	
4	Weight of saturated surface dry aggregate in air	W_3 g	2016	2018	2020	
5	Weight of water equal to the volume of the aggregate	$(W_3 - W_s)$ g	751	751	751	
6	Weight of oven dried aggregate	W_4 g	2010	2011	2012	
7	Specific Gravity	$W_4 / (W_3 - W_s)$	2.676	2.678	2.679	2.678
8	Apparent Specific gravity	$W_4 / (W_4 - W_s)$	2.698	2.703	2.708	2.703
9	Water Absorption	$((W_3 - W_4) * 100) / W_4$	0.30%	0.35%	0.40%	0.35%

Comments:
→ Maximum allowable Aggregate Water absorption value for Bituminous Concrete is 2.0%(MORTH table 500.16)

Note:
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Job No.: CACE/BBMP/UN/W.No.03/2021-22

Date : 04.01.2022

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE

AASHTO T 164 & AASHTO T 30

CLIENT	Assistant Executive Engineer, Yelahanka Satellite town Sub-Division, BBMP, Bangalore.
AGENCY	Sri. Umesh N, Contractor, Bangalore.
NAME OF THE WORK	Improvements to Roads and Drains at Ambabhavani Layout (Part-2) in Ward No 03, BBMP, Bangalore.
SAMPLE ID	Hot Mix Plant, Bangalore
DATE OF TESTING	04.01.2022

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	469.5	469
3. Weight of Asphalt and Mineral matter Extracted, g	30.5	31
4. Weight of Mineral Matter, g	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g (corrected)	30.5	31
7. Bitumen content in %	6.10	6.20
8. Average	6.15	

GRADATION AFTER EXTRACTION

SIEVE SIZE	Test 1				Requirement as per MORTH table
mm	Weight Retained, gm	Cummulative Weight Retained	%Cummulative Retained	% Passing	500.17
19	0	0	0	100	100
13.2	14.6	14.6	3.1	96.9	90 - 100
9.5	65.8	80.4	17.1	82.9	70 - 88
4.75	95.3	175.7	37.4	62.6	53 - 71
2.36	46.8	222.5	47.4	52.6	42 - 58
1.18	38.9	261.4	55.7	44.3	34 - 48
0.600	52.6	314	66.9	33.1	26 - 38
0.300	43.4	357.4	76.1	23.9	18 - 28
0.150	39.6	397	84.6	15.4	12 - 20
0.075	45.3	442.3	94.2	5.8	4 - 10

SIEVE SIZE	Test 2				Requirement as per MORTH table
mm	Weight Retained, gm	Cummulative Weight Retained	%Cummulative Retained	% Passing	500.17
19	0	0	0	100	100
13.2	13.8	13.8	2.9	97.1	90 - 100
9.5	68.9	82.7	17.6	82.4	70 - 88
4.75	92.4	175.1	37.3	62.7	53 - 71
2.36	46.2	221.3	47.2	52.8	42 - 58
1.18	45.5	266.8	56.9	43.1	34 - 48
0.600	50.3	317.1	67.6	32.4	26 - 38
0.300	46.8	363.9	77.6	22.4	18 - 28
0.150	43.7	400.6	85.4	14.6	12 - 20
0.075	43.5	444.1	94.7	5.3	4 - 10

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